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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/852,484      | 05/10/2001  | David John Nevill    | PH/5-30706A         | 5851             |

26748 7590 06/18/2003

SYNGENTA CROP PROTECTION, INC.  
PATENT AND TRADEMARK DEPARTMENT  
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EXAMINER

CLARDY, S

ART UNIT

PAPER NUMBER

1616

DATE MAILED: 06/18/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/852,484

Applicant(s)

Nevill et al

Examiner

S. Mark Clardy

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on May 1, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 2, and 8-21 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8-17, 19, and 20 is/are rejected.
- 7) ☒ Claim(s) 18 and 21 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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Claims 1, 2, 8-20, and new claim 21 are pending in this application for which a request for continued examination has been filed. The application was originally filed as a continuation of PCT/EP99/08559, filed November 8, 1999. Claims 1, 8, 14, and 18-20 have been amended.

Applicants' claims are drawn to a synergistic composition for the selective control of broad-leaf weeds and grasses in crops which are resistant to protoporphyrinogen oxidase (PPO) inhibitors comprising (claim 1):

- a) butafenacil (compound A), a PPO inhibiting herbicide
- b) at least one additional pesticide (herbicide<sup>1</sup>, fungicide, insecticide)
- c) optionally, a safener<sup>2</sup>.

Pages 10-326 are merely a generated list of permutations of herbicide combinations. No data is evident in the specification.

Claims 18 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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<sup>1</sup>Claims 8, 9, 11-20 list virtually every known herbicidal agent.

<sup>2</sup>Claim 10: benzoxazin (benoxacor), MON 4660, flurazole, dichlormid, furilazole.

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 8, 9, 11-15, 19, and 20 are rejected under 35 U.S.C. 102(a), (b), and (e) as being anticipated by Hudetz et al (US 6,159,899).

Hudetz et al teach the combination of a compound of formula A, i.e., applicants' PPO inhibiting herbicide, bufentacil, in combination with other herbicides for the selective control of weeds in crops such as maize, rice, sugar cane, plantation crops, cotton, potatoes, and soybeans (abstract and col 1, lines 6-10). Several of applicants' secondary herbicides are listed (col 19, lines 11-40) including metolachlor, atrazine, glyphosate, and dimethenamide (also Tables B1, B3, B4, B6). Compositions further comprising safeners are not disclosed.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 8-17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Hudetz et al and Devine et al<sup>3</sup>.

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<sup>3</sup>Devine et al. *Physiology of Herbicide Action*. Section 8.4 "Inhibitors of protoporphyrinogen-oxidase". PTR Prentice Hall: NJ. P. 152-163. 1993.

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Hudetz et al has been discussed above and discloses the combination of bufentacil, which is a PPO inhibiting herbicide, with secondary herbicides for selective control of weeds.

Devine et al, again, teach that there were several known antagonists (safeners) of the PPO inhibiting herbicides such as the nitrodiphenylethers (Table 8.4, p. 157).

One of ordinary skill in the art would be motivated to combine these references because Devine et al teaches the utility of safener compounds in herbicidal compositions such as those comprising PPO inhibiting herbicides.

Thus it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined applicants' PPO inhibiting herbicide butafenacil with additional pesticidal agents and safeners, because Hudetz et al teach the combination of butafenacil with secondary herbicides such as those claimed herein. Further, it is conventional in the art to make use of safeners for herbicides, several of which are disclosed in Devine et al.

Applicants' data, provided previously, shows herbicidal activity for butafenacil in combination with other herbicides: metolachlor, atrazine, nicosulfuron, mesotrione, metolachlor + atrazine, and metolachlor + mesotrione. However, in view of the anticipatory nature of Hudetz et al, discussed above, the claims do not appear allowable.

Applicants' claims 18 and 21, drawn to safened butafenacil compositions comprising the safener cloquintocet are allowable in view of Tomlin<sup>4</sup>. Tomlin teaches that cloquintocet-mexyl is a known safener, used in combination with the herbicide clodinafop, which inhibits lipid biosynthesis (ACCase). There is no teaching or suggestion in any reference of record that this

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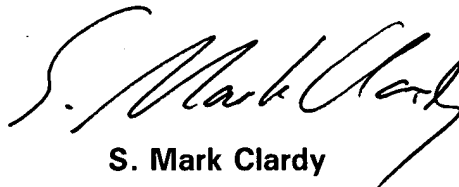
<sup>4</sup>Tomlin, C. D. S. *The Pesticide Manual*. 11th ed. "147 clodinafop-propargyl", "154 cloquintocet-mexyl". 1997.

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safener would be useful in combination with butafenacil specifically, or a PPO inhibiting herbicide in general.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103c and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is (703) 308-4550.



**S. Mark Clardy**  
**Primary Examiner**  
**AU 1616**

June 16, 2003